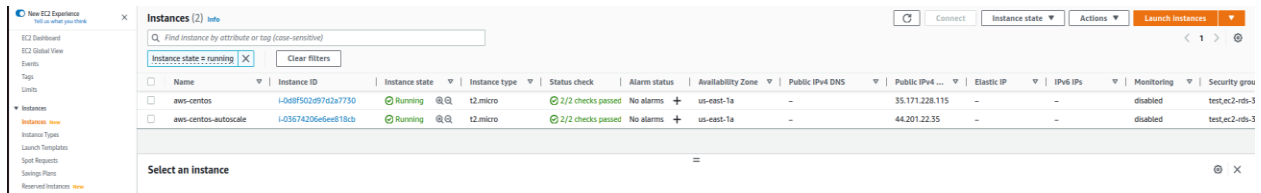## Edureka – AWS Solution Architect Certification Training Course: Project 2
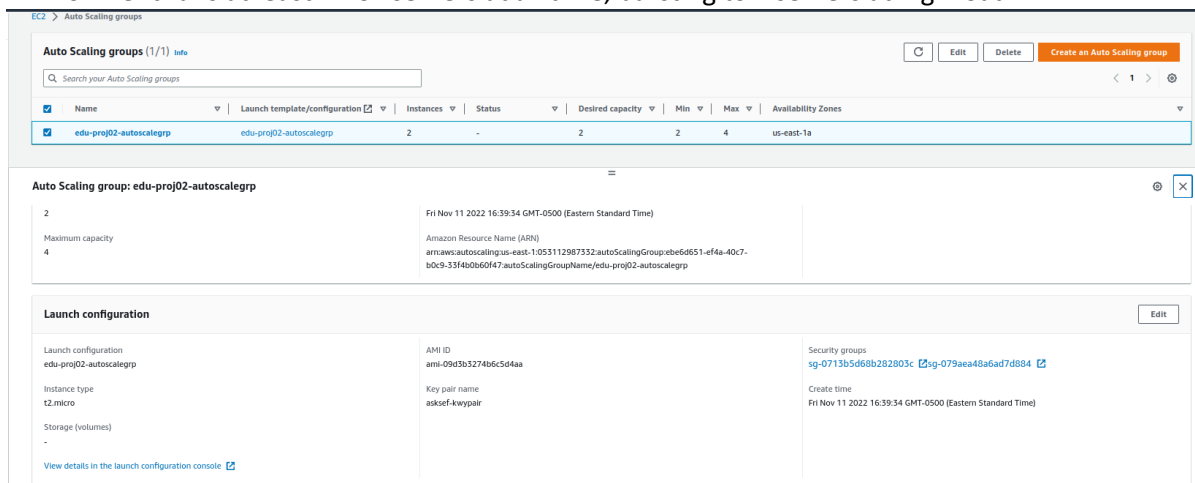
Goal: To architect a solution that is secure, scalable, highly available, and cost effective using AWS.

1: AWS Linux ami instance for Project 2

- Designed to host a dynamic website, where customers can enter their detail, then stored on a RDS database.
- Environment runs at least 2 EC2 servers at all time, bursting to 4 servers at high load

-

- Provides for PaaS solution with patching and backups

-

- Designed RDS environment
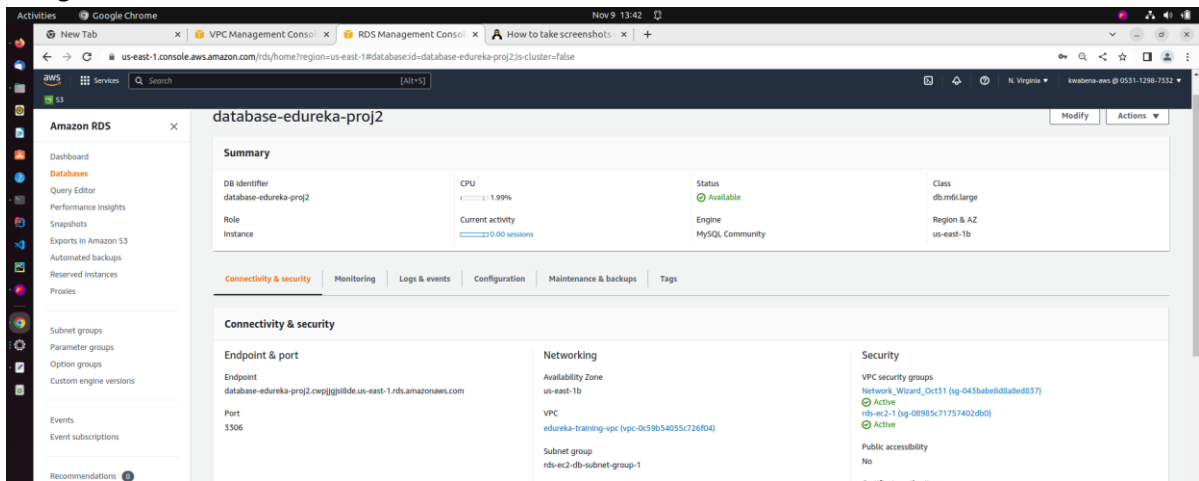
2: Amazon RDS instance for Project 2

database-edureka-proj2-snapshot

Details

ARN
arn:aws:rds:us-east-1:053112987332:snapshot:database-edureka-proj2-snapshot

Instance/Cluster Name
database-edureka-proj2

Master username
admin

DB snapshot name
database-edureka-proj2-snapshot

Snapshot type
manual

DB engine
mysql

DB engine version
8.0.28

License model
general-public-license

Option group
default:mysql-8-0

Snapshot Creation Time
Not yet available

Instance/Cluster Creation
October 31, 2022, 13:28 (UTC-04:00)

VPC
vpc-0c59b54055c726f04

Status
Creating

Storage type
Provisioned IOPS SSD (io1)

DB storage
400 GiB

IOPS
3000

Storage throughput
0

Port
3306

- Website for customer details

- Database contents


```
[ec2-user@ip-172-31-21-86 html]$ mysql -h database-1.cwpjjgjsi8de.us-east-1.rds.amazonaws.com -P 3306 -u admin -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 213
Server version: 8.0.28 Source distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MySQL [(none)]> select * from customer;
ERROR 1046 (3D000): No database selected
MySQL [(none)]> select * from eduprojdb.customer;
+------+-----------------+-------------------+
| id   | name            | address           |
+------+-----------------+-------------------+
|    1 | Solomon A S     | Toronto, Ontario  |
|    2 | Kwabena AS      | Etobicoke, Ontario |
|    3 | Paarth Manpreet | Etobicoke, Ontario |
+------+-----------------+-------------------+
3 rows in set (0.00 sec)

MySQL [(none)]>
```

- EC2 instance definition with auto-scaling, monitoring

Auto Scaling groups (1/1) Info

	Name	Launch template/configuration	Instances	Status	Desired capacity ▲	Min	Max	Availability Zones
☑	edu-proj02-autoscalegrp	edu-proj02-autoscalegrp	2	⊖ Updating capacity	0	0	0	us-east-1a

Auto Scaling group: edu-proj02-autoscalegrp

Details | Activity | Automatic scaling | **Instance management** | Monitoring | Instance refresh

Instances (2)

	Instance ID	Lifecycle	Instance type	Weighted capacity	Launch template/configur...	Availability Zone	Health status
☐	i-03674206e6ee818cb ↗	Terminating	t2.micro	-	edu-proj02-autoscalegrp ↗	us-east-1a	⊘ Healthy
☐	i-08c3d0975f7b791cf ↗	Terminating	t2.micro	-	edu-proj02-autoscalegrp ↗	us-east-1a	⊘ Healthy

- Monitoring

Backup:

- Others – disaster recovery

Instances (1/2) Info

Find instance by attribute or tag (case-sensitive)

Instance state = running X   Clear filters

Instance state ▲   Actions ▼   Launch instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	IPs	Monitoring	Security gr
aws-centos	i-0d8f502d97d2a7730	⊘ Running	t2.micro	⊘ 2/2 checks passed	No alarms +	us-east-1a		35.171.228.115	–	disabled	test,ec2-rds
aws-centos-autoscale	i-03674206e6ee818cb	⊘ Running	t2.micro	⊘ 2/2 checks passed	No alarms +	us-east-1a	–	44.201.22.35		disabled	test,ec2-rd

Stop instance
Start instance
Reboot instance
Hibernate instance
Terminate instance

aws-centos	i-0d8f502d97d2a7730	⊖ Terminated	t2.micro	–	No alarms +	us-east-1a	–	–	–	disabled	–
aws-centos-autoscale	i-03674206e6ee818cb	⊘ Running	t2.micro	⊘ 2/2 checks passed	No alarms +	us-east-1a	–	44.201.22.35	–	disabled	test,ec2
–	i-08c3d0975f7b791cf	⊘ Running	t2.micro	⊘ Initializing	No alarms +	us-east-1a	–	44.202.76.114	–	disabled	test,ec2

EC2 > Auto Scaling groups > edu-proj02-autoscalegrp

edu-proj02-autoscalegrp

Details | Activity | Automatic scaling | Instance management | Monitoring | Instance refresh

Activity notifications (0)

Actions ▼   Create notification

Filter notifications

Send to	On instance action

No notifications are currently specified

Create notification

Activity history (4)

Filter activity history

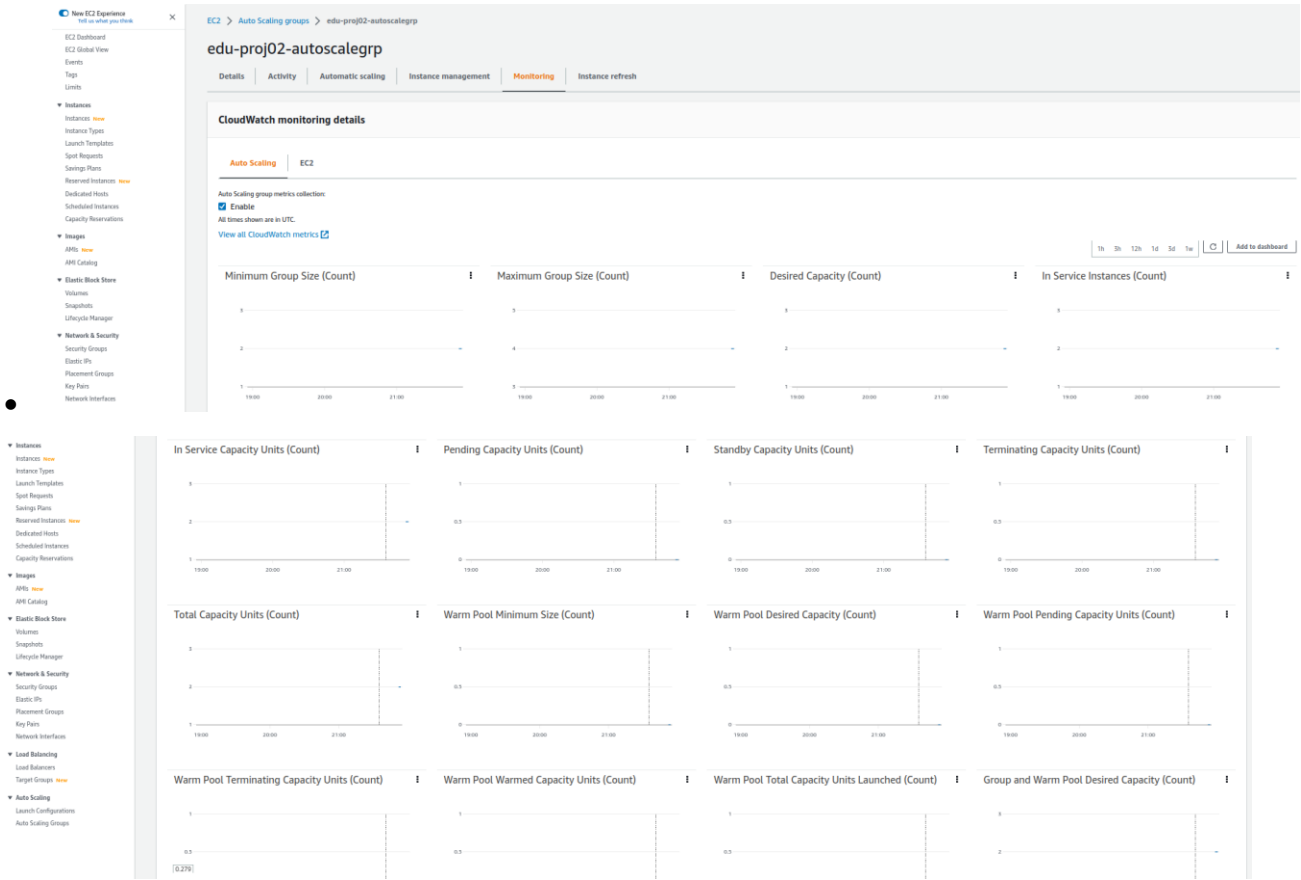| Status	Description	Cause	Start time	End time
Successful	Launching a new EC2 instance: i-08c3d0975f7b791cf	At 2022-11-12T20:10:26Z an instance was launched in response to an unhealthy instance needing to be replaced.	2022 November 12, 03:10:28 PM -05:00	2022 November 12, 03:11:00 PM -05:00
Successful	Terminating EC2 instance: i-0d8f502d97d2a7730	At 2022-11-12T20:10:26Z an instance was taken out of service in response to an EC2 health check indicating it has been terminated or stopped.	2022 November 12, 03:10:26 PM -05:00	2022 November 12, 03:10:48 PM -05:00
Successful	Launching a new EC2 instance: i-03674206e6ee818cb	At 2022-11-11T21:43:04Z a user request update of AutoScalingGroup constraints to min: 2, max: 4, desired: 2 changing the desired capacity from 1 to 2. At 2022-11-11T21:43:17Z an instance was started in response to a difference between desired and actual capacity, increasing the capacity from 1 to 2.	2022 November 11, 04:43:19 PM -05:00	2022 November 11, 04:44:22 PM -05:00
Successful	Attaching an existing EC2 instance: i-0d8f502d97d2a7730	At 2022-11-11T21:39:35Z an instance was added in response to user request. Keeping the capacity at the new 1.	2022 November 11, 04:39:35 PM -05:00	2022 November 11, 04:39:39 PM -05:00

edu-proj02-autoscalegrp

Details | Activity | Automatic scaling | Instance management | Monitoring | Instance refresh

Instances (2)

Actions ▼

Filter instances

Instance ID	Lifecycle	Instance type	Weighted capacity	Launch template/configur...	Availability Zone	Health status	Protected from
i-03674206e6ee818cb	InService	t2.micro	-	edu-proj02-autoscalegrp	us-east-1a	⊘ Healthy	
i-08c3d0975f7b791cf	InService	t2.micro	-	edu-proj02-autoscalegrp	us-east-1a	⊘ Healthy	

aws-centos	i-0d8f502d97d2a7730	⊖ Terminated	t2.micro	–	No alarms +	us-east-1a	–	–	–	disabled	–
aws-centos-autoscale	i-03674206e6ee818cb	⊘ Running	t2.micro	⊘ 2/2 checks passed	No alarms +	us-east-1a	–	44.201.22.35	–	disabled	test,ec2-rds-
–	i-08c3d0975f7b791cf	⊘ Running	t2.micro	⊘ 2/2 checks passed	No alarms +	us-east-1a	–	44.202.76.114	–	disabled	test,ec2-rds-